

# ELEXON

## BSC AUDIT SCOPE 2023/24

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Public

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## Direction for the Balancing and Settlement Code (BSC) Audit

### Risk Operating Plan 2023/24 alignment

The Risk Operating Plan (ROP) 2023/24 has been produced based on four inputs, which were reviewed by the Elexon Risk Manager in order to ascertain the most appropriate focus for 2023/24. The selected focus areas that are proposed in the ROP are based on:

- The Settlement Risk assessments provided in the Risk Evaluation Register (RER);
- Feedback received from BSC Parties and other interested parties about areas of the market that are of concern;
- The PAB Strategy and discussions held with the PAB during meetings throughout the year; and
- The latest results of the Technical Assurance of Metering (TAM) and BSC Audits.

The BSC Audit aligns itself with the ROP by prioritising deployment of BSC Audit Work Papers, which investigate processes associated with Settlement Risks identified in the ROP as requiring additional assistance in their immediate management.

The ROP has categorised key Settlement impacting Risks into the following 3 categories for the 2023/24 PAOP:

1. **CVA high focus risks (high focus and priority)**
2. **SVA high focus risks (high focus and priority)**
3. **SVA medium focus risks (medium focus and priority)**

### High Focus Risks

Risk	Market	Risk Sub-Category	BSC Audit Considerations	Recommended Action
020	CVA	Metering Equipment installation, programming, maintenance and Commissioning	Significant Settlement Errors may occur as a result of failure of any these CVA risks. A high focus is required in order to identify and resolve existing errors and to prevent further errors from occurring.	CVA Work Papers, which cover processes relating to Fault Identification and Resolution, Data Estimation and Accuracy, and Registrations and Commissioning should be included in the scope for the BSC Audit 2023/24.
021	CVA	Retrieval and processing of Metered Data		
022	CVA	Notification of change to Metering Equipment		
023	CVA	Fault resolution		
003	SVA	Metering Equipment installation, programming, maintenance and Commissioning	The BSC Audit 2021/22 identified an increase in material error due to the management around the process of Commissioning, including the sending of relevant data flows. However, the majority of Risk 003 responsibilities have moved to the Retail Energy Code (REC).	BSC Audit Work Papers directly investigating Risk 003 and Meter Operator Agent (MOA) obligations are no longer covered under the BSC. However Work Papers relating to Risk 003 Licensed Distribution System Operators (LDSOs) obligations will be deployed. The BSC Audit 2021/22 passed on its findings to the REC to determine further action for obligations that are no longer part of the BSC.
007	SVA	Retrieval of Metered Data	Industry performance remains lower than pre-pandemic levels in all areas of the market.	The BSC Audit has limited Work Papers focused on the detection of issues relating to Risk 007 as this is mostly covered by standard Performance

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				monitoring and Error Failure Resolution (EFR), However the BSC Audit will review relevant Work Papers to ensure that Supplier serviced/smart readings and manual retrieval of reads are sufficiently covered.
008	SVA	Processing of Metered Data	The average number of Suppliers with material instances of large EAC/AAs that are above their applicable threshold has increased in 2022/23, while the BSC Audit 2021/22 also noted a high number of issues relating to this Risk.	The BSC Audit will work alongside the large EAC/AA Material Error Monitoring (MEM) Reporting to ensure that large EAC/AA processes are checked against Suppliers which are seeing an increase in large EAC/AA instances. This is also checked against the Non Half Hourly (NHH) Data Collector processes.
017	SVA	Exception management	The BSC Audit 2021/22 noted Risk 017 had the highest number of issues and an increase in severity of issues from previous years.	The BSC Audit will continue to deploy relevant Work Papers which have previously identified Risk 017 related issues and will ensure follow up to larger issues via EFR.

## Medium Focus Risks

Risk	Market	Risk Sub-Category	BSC Audit Considerations	Recommended Action
005	SVA	Fault resolution	Fault Resolution was depicted as most impactful on the operations of BSC Parties by the assurance survey, however the majority of the controls have moved responsibility to the REC.	While many Fault Resolution processes sit with MOAs which are monitored by the REC, there are some associated processes managed by BSC Parties such as the identification of faults (by Supplier and Data Collectors) which are eligible for Audit and will be included in the scope.
016	SVA	Energisation status	The BSC Audit 2021/22 noted Risk 016 had a high weighted score and an increase in material error from previous years. However some controls have moved responsibility to the REC.	While some Energisation status processes sit with MOAs which are monitored by the REC, some associated processes e.g. processes associated with Licensed Distribution System Operators (LDSOs) are still managed by BSC Parties and will be included in the scope.
018	SVA	Revenue protection	Increases in the Ofgem price cap are likely to lead to an increase in stolen electricity.	The BSC Audit is reviewing Work Papers to ensure processes relating the entering of new EAC/AAs into Settlement once a BSC Party is informed by the Revenue Protection Service are covered where possible.

In addition to the areas of testing identified by the ROP, the frequency and triggers for certain BSC Audit testing will remain as follows:

- Testing of standard systems will only occur where a change to the system has been made; and
- Processes will only be tested where there has been at least one instance of this process being operated within the audit period.

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### Additional Considerations

#### Data Quality

On all testing the BSC Auditor carries out the following:

- A test of design (i.e. the process and controls);
- A test of implementation (a walkthrough to see if the controls are operated as described); and
- A sample test ((depending on the intensity of the audit) to ensure that the control/process is working correctly (i.e. all the time).

Issues can be raised at any one of these stages and to ensure the completeness and accuracy of the data in Data Transfer Network (DTN) flows, additional questions are included for all Performance Assurance Party testing, focusing particularly on controls.

#### Work Paper Composition

In addition to the BSC Audit alignment with the ROP, Elexon may also prioritise deployment of BSC Audit Work Papers which meet the following criteria:

- Have historically generated a significant number or high severity of Audit issues.
- Provides key insights into a BSC Procedure considered critical to the accuracy of Settlement.
- Increases detection of potential issues associated with a BSC Procedure which has not been considered a Focus Risk for a significant number of Audit cycles.

Any BSC Party which has an open material Audit issue against a BSC Audit Work Paper is eligible to for testing against the same Work Paper within the 2023/24 Audit year.

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### Materiality Threshold

The BSC Auditor will 'Qualify' its audit Opinion for the ISAE (UK) 3000 Audit Opinion if it cannot provide reasonable assurance that the total level of error in Settlement is less than the materiality threshold.

The materiality threshold for the BSC Audit for 2023/24 will be 1.1TWh, which represents approximately 0.5% of the total annual electricity supplied across Great Britain in 2022.

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### Reporting

Unless otherwise agreed with the BSC Panel, the BSC Audit Report for 2023/24 will be presented to the Panel in June 2024.

## Scope of the BSC Audit

This section details the scope of the BSC Audit and terms of reference for the BSC Auditor for 1 April 2023 to 31 March 2024.

The scope of the BSC Audit for 2023/24 will include the functions and processes described below, split into two elements:

- a) Process Assessment Audit
- b) ISAE (UK) 3000 Opinion Audit

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### Process Assessment Audit – Industry roles in Scope

#### Supplier Meter Registration Agents

Each Supplier Meter Registration Agent (SMRA) identifies all Metering Systems attached to a Distribution Network. The SMRA will hold the history of Supplier registrations for each Metering System. They provide information on unmetered exit points with the history of their Supplier registrations. In addition, SMRAs will provide Line Loss Factor Classes. The contractual relationship between Suppliers and SMRAs is encapsulated in the Master Registration Agreement (MRA).

#### Data Retrieval & Data Processing (Data Collectors)

Retrieval encompasses Meter reading and detection of potential Meter reading faults (on behalf of the MOA).

Data Processing is the validation and conversion of Meter readings into energy consumption, the estimation of missing data using an approved method and the transmission of this data to the DA.

#### Data Aggregators

Data Aggregation is the aggregation of Supplier or BM Unit specific energy consumption data, after the application of Line Loss Factor (LLF) for Half Hourly (HH) metered data, to produce the aggregated data.

#### Licensed Distribution System Operators

Licensed Distribution System Operators (LDSOs) are responsible for the overall management and maintenance of Distribution Systems in addition to the registration of Metering Systems in Supplier Meter Registration Service (SMRS).

#### Unmetered Supply Operators

LDSOs are responsible for the Unmetered Supplies Operator (UMSO) function. UMSOs are responsible for managing any Unmetered Supplies (UMS) attached to a Distribution Network, and are required to provide specific details to Suppliers and Supplier Agents in order that they can meet their Settlement obligations.

#### Meter Administrators

Meter Administrators (MA) are responsible for calculating the half-hourly allocation for HH SVA UMS and providing this information to the DC.

#### Supplier Systems and Associated Internal Procedures

Suppliers are responsible for managing their Supplier Agents and for providing key data to their Supplier Agents as set out in the BSC and BSC Procedures.

#### CVA Registrants

CVA Registrants are responsible for the management of CVA Metering System Registration processes, as well as appointing and providing key data to their CVA Agents as set out in the BSC and BSC Procedures. The Audit of Registrants of CVA Metering Systems will cover, Fault Identification and Resolution, Data Estimation and accuracy, Registrations and Commissioning.

### Data Transfer

The Data Transfer Service and NETA network service are outside the scope of the BSC Audit but the audit will include reviews at market participants' premises to check dispatch and receipt of data messages.

### Off The Shelf Model

The majority of the newer 'off the shelf' Performance Assurance Parties (PAPs) do not breach the Metering System Identifier (MSID) threshold to fall in scope for the BSC Audit; this is perceived as a gap between the Qualification process and the BSC Audit process. While the size of these smaller PAPs limits their potential impact on Settlement, there are concerns in some cases that some 'off the shelf' PAPs may not have sufficient experience and processes in place in order to operate effectively in terms of Settlement.

Elexon will utilise the following approach in response to the changing market where looking exclusively at MSID thresholds may no longer be appropriate in all instances.

The BSC Audit can include 'Off the shelf' PAPs (varied roles) targeted for a full intensity audit, irrespective of whether or not they fall in scope through MSID threshold. Elexon may target managed services groups and PAPs demonstrating poor behaviour.

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## Process Assessment Audit – Settlement Risks and Testing

Each BSC Audit Work Paper can relate to multiple Settlement Risks. The Settlement Risks are assigned to Work Papers based on:

- The Work Paper generating issues relating to a Settlement Risk in historic Audits. This may be directly related to the procedure being tested, or indirectly as a result of the testing or Audit enquiries.
- The Work Paper testing a procedure (or part of a procedure) outlined in the RER Ledger which aligns with a specific (or multiple) Settlement Risks.

Sections or Work Papers that are greyed out indicate that these areas will not be covered in the 2023/24 Audit except at Parties that have material issues raised against those areas in prior years.

### 1. Risk 001 – SVA Registration

1.1 ROP rating: Low (not in focus)

1.2 The risk that a Metering Point is registered incorrectly or not at all, such that metered data is not collected or aggregated resulting in erroneous, estimated or missing data in Settlement.

1.3 BSC Audit testing for Settlement Risk 001 includes:

Role	SVA Work Papers
Supplier Meter Registration Agent (SMRA)	<ul style="list-style-type: none"><li>• Processing of standing data changes received from Suppliers and LDSO</li><li>• Validity of standing data</li><li>• Processing of Objections and Objection Removal (on Change of Supply)</li><li>• Processing of retrospective amendments</li><li>• Resolution of D0023<sup>1</sup> rejections</li></ul>
Supplier	<ul style="list-style-type: none"><li>• Processes surrounding the identification and correction of HH data quality exceptions (D0235<sup>2</sup>)</li><li>• Fault resolution processes</li><li>• Compensating Crystallised Errors</li><li>• Appointments Process</li></ul>

### 2. Risk 002 – SVA Attributes

2.1 ROP rating: Low (not in focus)

2.2 The risk that SVA Metering System attributes held in the Supplier Meter Registration Service (SMRS) or by any party in the Supplier Hub are incorrect resulting in erroneous or estimated data in Settlement.

2.3 BSC Audit testing for Settlement Risk 002 includes:

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<sup>1</sup> Failed Instructions

<sup>2</sup> Half Hourly Aggregation Exception Report

Role	SVA Work Papers
SMRA	<ul style="list-style-type: none"> <li>Processing of SMRA/SMRS/ Metering Point Registration System (MPRS) Refresh Request</li> <li>Processing of standing data changes received from Suppliers and LDSO</li> <li>Validity of standing data</li> <li>Processing of retrospective amendments</li> <li>Resolution of D0023 rejections</li> </ul>
LDSO	<ul style="list-style-type: none"> <li>Completeness of provision of site technical details</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>Compensating Crystallised Errors</li> <li>Appointments Process</li> <li>Change of Measurement Class</li> </ul>

### 3. Risk 003 – SVA Metering Equipment installation, programming, maintenance and commissioning

3.1 ROP rating: High (in focus)

3.2 The risk that SVA Metering Equipment is installed, programmed or maintained incorrectly where commissioning is performed incorrectly or not at all resulting in erroneous or estimated data in Settlement

3.3 BSC Audit testing for Settlement Risk 003 includes:

Role	SVA Work Papers
LDSO	<ul style="list-style-type: none"> <li>Commissioning</li> </ul>

### 4. Risk 004 - SVA Notification of change to Metering Equipment

4.1 ROP rating: Low (not in focus)

4.2 The risk that Changes to Metering Equipment are not notified, such that all members of the Supplier Hub do not use the correct Meter Technical Details resulting in erroneous or estimated data in Settlement

4.3 BSC Audit testing for Settlement Risk 004 includes:

Role	SVA Work Papers
LDSO	<ul style="list-style-type: none"> <li>Completeness of provision of site technical details</li> </ul>
HHDC	<ul style="list-style-type: none"> <li>Processing of standing data changes received from Supplier and MOA</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>Processing of standing data changes received from Suppliers and MOA</li> </ul>

### 5. Risk 005 – SVA Fault resolution

5.1 ROP rating: Medium (in focus)

5.2 The risk that a fault with SVA Metering Equipment is not resolved, such that metered data is recorded incorrectly or cannot be retrieved resulting in erroneous or estimated data in Settlement.

5.3 BSC Audit testing for Settlement Risk 005 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"> <li>Reporting of consumption on de-energised meter (D0001<sup>3</sup>) to Supplier and MOA</li> <li>Resolution of Inconsistencies</li> <li>Validity of consumption</li> <li>Processing of HH consumption</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>Processes surrounding the identification and correction of NHH data quality exceptions (D0095<sup>4</sup>)</li> <li>Processes surrounding the identification and correction of HH data quality exceptions (D0235)</li> <li>Fault resolution processes</li> </ul>

### 6. Risk 006 – SVA Meter Technical Details transfer and processing

6.1 ROP rating: Low (not in focus)

<sup>3</sup> Request Metering System Investigation

<sup>4</sup> Non Half Hourly Data Aggregation Exception Report



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6.2 The risk that on a Change of Agent, Meter Technical Details are not transferred or processed correctly or at all, such that parties do not use the latest Meter Technical Details resulting in erroneous or estimated data in Settlement.

6.3 BSC Audit testing for Settlement Risk 006 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"><li>Processing of standing data changes received from Supplier and MOA</li></ul>
NHHDC	<ul style="list-style-type: none"><li>Backlogs of standing data flows and meter readings</li><li>Processing of standing data changes received from Supplier and MOA</li></ul>

## 7. Risk 007 – SVA Retrieval of Metered Data

7.1 ROP rating: High (in focus)

7.2 The risk that SVA Metered Data is not retrieved, such that the proportion of estimated data being used in Settlement contributes to performance standards not being met resulting in estimated data in Settlement.

Role	SVA Work Papers
NHHDC	<ul style="list-style-type: none"><li>Validity of meter readings</li></ul>
HHDC	<ul style="list-style-type: none"><li>Validity of consumption</li><li>Processing of HH consumption</li></ul>

## 8. Risk 008 – SVA Processing of Metered Data

8.1 ROP rating: High (in focus)

8.2 The risk that SVA Metered Data is not processed or transferred correctly, or at all resulting in erroneous or estimated data in Settlement.

8.3 BSC Audit testing for Settlement Risk 008 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"><li>Validity of standing data</li><li>Processing of HH consumption</li><li>Validity of consumption</li><li>Data estimation</li><li>Backlogs of Incoming/Outgoing flows</li><li>Processing of standing data changes received from Supplier and MOA</li><li>Resolution of Inconsistencies</li><li>Processing of Metering System Related Details (D0170<sup>5</sup>) on request after Change of Supplier/Agent event</li></ul>
NHHDC	<ul style="list-style-type: none"><li>Validity of standing data</li><li>Processing of meter readings collected via hand held unit</li><li>Processing of meter readings collected via manual meter sheet or other paper record</li><li>Processing of meter readings collected via Supplier (D0010<sup>6</sup>) or other electronic method</li><li>Override of reads which have failed validation</li><li>Validity of meter reading withdrawals</li><li>Processing of meter reading withdrawals</li><li>Processing of DMA on Change of Supplier</li><li>Validity of DMA</li><li>Processing of DMA after RF where have an EAC with no AA at RF and a meter reading has been received post RF</li><li>Re-performance of DMA calculation performed by EAC/AA calculator</li><li>Requests for calculation of EAC/AA</li><li>Validity of EAC/AA</li><li>Adequacy of controls over large EAC/AA</li><li>Re-performance of calculation performed by EAC/AA calculator</li><li>Processing of standing data changes received from Suppliers and MOA</li><li>Backlogs of standing data flows and meter readings</li><li>Validity of meter readings</li><li>Processing of Metering System Related Details (D0010 and D0152<sup>7</sup>) on request after Change of Supplier/Agent event</li><li>Resolution of D0023 rejections</li></ul>

<sup>5</sup> Request for Metering System Related Details

<sup>6</sup> Meter Readings

<sup>7</sup> Metering System EAC/AA Historical Data

Role	SVA Work Papers
	<ul style="list-style-type: none"> <li>Resolution of D0095 exceptions</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>Compensating Crystallised Errors</li> <li>Appointments Process</li> </ul>

## 9. Risk 009 – SVA Data Aggregator Processes Metered Data

9.1 ROP rating: Low (not in focus)

9.2 The risk that the Data Aggregator does not process metered data correctly or at all, including transfer to SVAA, such that the energy volumes required for Settlement are incorrect or missing resulting in erroneous, missing or estimated data in Settlement.

9.3 BSC Audit testing for Settlement Risk 009 includes:

Role	SVA Work Papers
HHDA	<ul style="list-style-type: none"> <li>Processing of MDD</li> <li>DA Validation of MDD</li> <li>Processing of standing data changes received from SMRA/SMRS/MPRS</li> <li>Validity of standing data</li> <li>Obtaining and processing of Line Loss Factors from ELEXON website</li> <li>Processing and validation of BM unit data received from Supplier</li> <li>Validity of HH consumption data</li> <li>Re-performance of Aggregation</li> <li>Sending of SPMs to SVAA</li> <li>Data/Flow processing backlogs at DA</li> <li>Reporting of anomalies to HHDC Agents and Suppliers (D0235)</li> </ul>
NHHDA	<ul style="list-style-type: none"> <li>Processing and validity of MDD</li> <li>Processing of standing data changes and consumption received from SMRA/SMRS/MPRS and NHHDC</li> <li>Validity of standing data and consumption</li> <li>Re-performance of Aggregation</li> <li>Sending of SPMs to SVAA</li> <li>Notification of MPANs excluded from the RF</li> <li>Data/Flow processing backlogs at DA</li> <li>Level of outstanding D0023 flows reported by NHHDA</li> </ul>

## 10. Risk 010 – SVA Meter read history

10.1 ROP rating: Low (not in focus)

10.2 The risk that on Change of Supplier or Agent, Meter read history is incorrect or not transferred such that sufficient history is not available for validating and estimating energy volumes resulting in erroneous or estimated data in Settlement

10.3 BSC Audit testing for Settlement Risk 010 includes:

Role	SVA Work Papers
HHDC	<ul style="list-style-type: none"> <li>Processing of Metering System Related Details (D0170) on request after Change of Supplier/Agent event</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>Processing of Metering System Related Details (D0010 and D0152) on request after Change of Supplier/Agent event</li> </ul>

## 11. Risk 011 – SVA Unmetered Supplies

11.1 ROP rating: Low (not in focus)

11.2 The risk that Unmetered Supplies volumes are calculated incorrectly or not at all, resulting in erroneous or missing data in Settlement.

11.3 BSC Audit testing for Settlement Risk 011 includes:

Role	SVA Work Papers
MA	<ul style="list-style-type: none"> <li>Retention and maintenance of EMTD and other information required to perform MA functions</li> <li>Receipt and recording of summary inventory records received</li> <li>Fault reporting (notification of missing / unavailable data) and notification of data availability</li> <li>Calculation of deemed meter volumes and provision of output into settlement</li> </ul>

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UMSO	<ul style="list-style-type: none"><li>• Maintenance and provision of connection agreements</li><li>• Maintenance and provision of UMS inventories</li><li>• Completeness, accuracy and validity of calculation and provision of NHH EACs</li><li>• Creation and provision of UMS Certificates</li><li>• Provision of Standard Settlement Configuration and Profile Class details including disconnections and energisation status</li><li>• Provision of Equivalent Meter Details</li></ul>
HHDC	<ul style="list-style-type: none"><li>• Processing of standing data changes received from Supplier and Agents</li></ul>
NHHDC	<ul style="list-style-type: none"><li>• Processing of standing data changes received from Suppliers and Agents</li></ul>

### 12. Risk 012 – SVA Metering Equipment Technical Detail Quality

12.1 ROP rating: Low (not in focus)

12.2 The risk that SVA Metering System technical details are created incorrectly resulting in erroneous or estimated data in Settlement.

12.3 BSC Audit testing for Settlement Risk 012 includes:

Role	SVA Work Papers
LDSO	<ul style="list-style-type: none"><li>• Completeness of provision of site technical details</li></ul>

### 13. Risk 013 – SVA Manual adjustments

13.1 ROP rating: Low (not in focus)

13.2 The risk that Manual adjustments to Metered Data are not completed correctly, or at all resulting in erroneous data in Settlement.

13.3 BSC Audit testing for Settlement Risk 013 includes:

Role	SVA Work Papers
NHHDC	<ul style="list-style-type: none"><li>• Correct Incorrect Register Mapping</li><li>• Follow up EAC/AA exception report</li><li>• Follow up of EAC/AA filter exceptions</li><li>• GVC - Compensating Crystallised Errors</li><li>• Implementation of modification P196 Long term vacant sites (NHH)</li><li>• Manual calculation of DMA</li><li>• Processing of meter reading withdrawals</li><li>• Validity of DMA</li><li>• Adequacy of controls over large EAC/AA</li></ul>
Supplier	<ul style="list-style-type: none"><li>• Compensating Crystallised Errors</li><li>• Processing of data flows – backlogs</li><li>• Appointments Process</li></ul>

### 14. Risk 014 – SVA Agent appointments

14.1 ROP rating: Low (not in focus)

14.2 The risk that Agents are not appointed or de-appointed correctly, such that SMRS is not complete or up to date, members of the Supplier Hub do not hold the correct MPID of other Hub members or the appropriate agents are not appointed resulting in Estimated data in Settlement

14.3 BSC Audit testing for Settlement Risk 014 includes:

Role	SVA Work Papers
Supplier	<ul style="list-style-type: none"><li>• Processes and controls operated by a Supplier to ensure key processes are operating</li><li>• Appointments Process</li><li>• Updates of Registration Details</li><li>• Compensating Crystallised Errors</li></ul>

### 15. Risk 015 – SVA Reference data

15.1 ROP rating: Low (not in focus)

- 15.2 The risk that SVA reference data is not created or transferred correctly, or at all, resulting in erroneous data in Settlement.
- 15.3 Elxon has determined that the following activities and Performance Assurance Techniques adequately cover Risk 015:
- Performance of this Risk will be observed through the annual LLF Audit when forecasting future failure rates.

## 16. Risk 016 – SVA Energisation status

- 16.1 ROP rating: Medium (in focus)
- 16.2 The risk that the energisation status held in SMRS or by any party in the Supplier Hub does not match the physical energisation status of the SVA metering system resulting in erroneous or estimated data in Settlement.
- 16.3 BSC Audit testing for Settlement Risk 016 includes:

Role	SVA Work Papers
LDSO	<ul style="list-style-type: none"> <li>• Completeness of disconnection of Metering Systems</li> <li>• Changes to energisation status</li> </ul>
HHDC	<ul style="list-style-type: none"> <li>• Processing of standing data changes received from Supplier and MOA</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>• Visits to De-energised sites</li> <li>• Processing of standing data changes received from Suppliers and MOA</li> <li>• Backlogs of standing data flows and meter readings</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>• Compensating Crystallised Errors</li> <li>• Appointments Process</li> </ul>

## 17. Risk 017 – SVA Exception management

- 17.1 ROP rating: High (in focus)
- 17.2 The risk that Exception reports are not sufficiently managed, such that material exceptions are not addressed at all or in a timely manner resulting in default or estimated data in Settlement.
- 17.3 BSC Audit testing for Settlement Risk 017 includes:

Role	SVA Work Papers
HHDA	<ul style="list-style-type: none"> <li>• Reporting of anomalies to HHDC Agents and Suppliers (D0235)</li> </ul>
NHHDA	<ul style="list-style-type: none"> <li>• Level of D0095 exceptions as reported by NHHDA</li> </ul>
HHDC	<ul style="list-style-type: none"> <li>• Resolution of Inconsistencies</li> </ul>
NHHDC	<ul style="list-style-type: none"> <li>• Resolution of D0023 rejections</li> <li>• Resolution of D0095 exceptions</li> </ul>
Supplier	<ul style="list-style-type: none"> <li>• Long Term Vacant Sites</li> <li>• Processes surrounding the identification and correction of HH data quality exceptions (D0235)</li> <li>• Processes surrounding the identification and correction of NHH data quality exceptions (D0095 )</li> <li>• Change of Measurement Class</li> </ul>

## 18. Risk 018 – SVA Revenue protection

- 18.1 ROP rating: Medium (in focus)
- 18.2 Revenue Protection processes are not managed sufficiently, such that unrecorded energy volumes are excluded from Settlement.
- 18.3 Elxon has determined that the following activities and Performance Assurance Techniques adequately cover Risk 018:
- Increased industry engagement
  - Review of theft estimation calculations (utilising the Retail Energy Code) calculations
  - Review of Supplier Work Paper covering Processes and controls operated by a Supplier to ensure key processes are operating

## 19. Risk 019 – CVA Registration

- 19.1 ROP rating: Low (not in focus)

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19.2 The risk that A Volume Allocation Unit is registered incorrectly or not at all, such that the CDCA does not collect any or the relevant data

19.3 BSC Audit testing for Settlement Risk 019 includes:

Role	CVA Work Papers
CVA Registrants	<ul style="list-style-type: none"><li>Registrations and Commissioning</li></ul>

## 20. Risk 020 – CVA Metering Equipment Installation and Commissioning

20.1 ROP rating: High (in focus)

20.2 The risk that CVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all.

20.3 BSC Audit testing for Settlement Risk 020 includes:

Role	CVA Work Papers
CVA Registrants	<ul style="list-style-type: none"><li>Fault Identification and Resolution</li></ul>

## 21. Risk 021 – CVA Retrieval and Processing of Metered Data

21.1 ROP rating: High (in focus)

21.2 The risk that CVA metered data is not retrieved, or processed correctly, or at all, by the CDCA

21.3 BSC Audit testing for Settlement Risk 021 includes:

Role	CVA Work Papers
CVA Registrants	<ul style="list-style-type: none"><li>Data Estimation and Accuracy</li></ul>

## 22. Risk 022 – CVA Metering system technical details are not created or notified correctly

22.1 ROP rating: High (in focus)

22.2 The risk that CVA Metering System technical details are not created or notified correctly.

22.3 BSC Audit testing for Settlement Risk 022 includes:

Role	CVA Work Papers
CVA Registrants	<ul style="list-style-type: none"><li>Registrations and Commissioning</li></ul>

## 23. Risk 023 – CVA Fault resolution

23.1 ROP rating: High (in focus)

23.2 The risk that a fault with CVA Metering Equipment causes metered data to be recorded incorrectly or cannot be retrieved.

23.3 BSC Audit testing for Settlement Risk 023 includes:

Role	CVA Work Papers
CVA Registrants	<ul style="list-style-type: none"><li>Fault Identification and Resolution</li></ul>

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## ISAE (UK) 3000 Assurance Opinion Audit - BSC Systems and BSC Agents

## 24. Central Registration

24.1 The Central Registration Agent (CRA) collects, validates, stores and distributes shared reference data used by other related business processes. This includes the registering of all Meter Points, Metering Systems, Balancing Mechanism (BM) Units, Trading Units, and sets of Aggregation Rules for each BSC Party.

24.2 The BSC Audit testing for Central Registration includes:

- Maintenance of the BM Credit Assessment Export Capability (BMCAEC)
- Maintenance of the BM Credit Assessment Import Capability (BMCAIC)

### 25. Aggregate and Check Contract Volume

25.1 The Energy Contract Volume Aggregation Agent (ECVAA) accepts or rejects Energy Contract Volume Notifications (ECVNs) and Metered Volume Reallocation Notifications (MVRNs). The ECVAA aggregates valid ECVNs and MVRNs to determine the Account Bilateral Contract Volume for each Party's Energy Account. The ECVAA reports the Account Bilateral Contract Volume for each Party and Settlement Period for that Settlement Day to the Settlement Administration Agent (SAA) on a daily basis.

25.2 The BSC Audit testing includes:

- Acceptance of ECVN and MVRN
- Aggregation of valid Energy Contract Volume Reallocation Notifications and Metered Volume Reallocation Notifications
- Submission of data to the Settlement Administration Agent

### 26. Credit Cover Management

26.1 Credit monitoring of BSC Parties is the responsibility of the Funds Administration Agent (FAA), ECVAA and BSCCo. Letters of credit/cash are lodged with the FAA. The ECVAA calculates the Credit Cover Percentage and notifies BSCCo if the agreed Default limits are exceeded.

26.2 The BSC Audit testing includes:

- Application of Credit Cover rules as defined within the BSC

### 27. Balancing Mechanism Reporting

27.1 The Balancing Mechanism Reporting Agent (BMRA) publishes a range of public market information for users of the service and calculates data for submission to Settlement.

27.2 The BSC Audit testing includes:

- The consistency of the data that is included within the reports that are published by the BMRA

### 28. Calculation of Market Index Data

28.1 The Market Index Data Providers (MIDPs) calculate and provide to the BMRA and SAA a market price in respect of each Settlement Period on a half hourly and daily basis. The market price reflects the price of wholesale electricity in the short-term market.

28.2 The BSC Audit testing includes:

- The controls surrounding the calculation and transfer of the Market Index Data to the BMRA and SAA
- Determination and calculation of the Market Index Data (in accordance with the Market Index Definition Statement).

### 29. Calculation and Aggregation of Metered Data

29.1 The Central Data Collection Agent (CDCA) collects and aggregates the metered data from Metering Systems registered in CRA. The volumes for missing or disputed data are estimated in accordance with the BSC and reported to the Central Volume Allocation Meter Operator Agent (CVA MOA) and BSCCo. The Grid Supply Point (GSP) Group Take is calculated in accordance with the Settlement timetable (published on the BSC Website). This information is passed to the Supplier Volume Allocation Agent (SVAA) and is used as the basis for calculating the Supplier Volume Allocation (SVA).

29.2 The BSC Audit testing includes:

- Completeness of Commissioning and Proving Test records
- Aggregation of metered data registered in CDCA
- Calculation of GSP Group Take

### **30. Processes associated with CVA MOAs**

- 30.1 CVA MOAs are responsible for maintenance of CVA sites in compliance with relevant BSCP and Codes of Practice (COPs). CVA MOAs are also responsible for providing relevant data to Central Systems in accordance with the BSC.
- 30.2 The BSC Audit testing includes:
- Registration of new metering systems
  - Processing of changes of Meter Operator Agent
  - Processing of registration transfers between Central Meter Registration Service (CMRS) and SMRA/SMRS/MPRS
  - Processing of registration transfers between SMRA/SMRS/MPRS and CMRS
  - Processing of reconfiguration, replacement or removal of metering equipment
  - Performance of routine work, attendance at operational emergencies, and processing of requests to investigate inconsistencies (faults)
  - Initiation and performance of proving tests
  - Processing of data estimations
  - Authorisations

### **31. Calculate Settlement Debits and Credits**

- 31.1 The SAA receives calculated Supplier Volume Allocations, Contract Volume and reallocation data, GSP Group Take and Information Imbalance Price. The SAA performs the Interim, Initial Settlement and Reconciliation runs according to the Settlement timetable and calculates the Credits and Debits resulting from the Settlement of Balancing Mechanism actions and Imbalance cash-out. Settlement reports are sent to BSC Parties to validate, and to the Funding Administration Agent (FAA).
- 31.2 The BSC Audit testing includes:
- Calculation of Credits and Debits to BSC Parties via Balancing Mechanism and the imbalance Settlement arrangements
  - Calculation of Main and Market Prices as used in imbalance Settlement arrangements.

### **32. Funds Transfer**

- 32.1 The FAA manages the funds transfer process.
- 32.2 The BSC Audit includes:
- Calculations of the charges for each BSC Party for each Settlement Run
  - Aggregation of instructions for Initial Settlement related transfers of money into one charge/payment per BSC Party per day
  - Production of Advice Notes/Statements to be sent to BSC Parties on the basis of the required charge payments

### **33. Market Domain Data**

- 33.1 Market Domain Data (MDD) is standing data required for the operation of SVA. The data falls into two categories - Organisation Data and Classification Data:
- Organisation Data includes company name and identifiers for Distributor, Supplier and relevant Supplier Agents.
  - Classification Data includes Valid Measurement Requirement Profile Classes, Time Pattern Regimes and Standard Settlement Configurations.
- 33.2 The BSC Audit testing includes:
- Completeness and consistency of data items entered into MDD
  - Input of key data items received from MDD by Data Aggregators (DAs) including LLFs

### **34. Supplier Volume Allocation & Reconciliation**

- 34.1 Supplier Volume Allocation & Reconciliation is the aggregation of Supplier/BM Unit Purchase Matrices to a GSP Group and calculation/recalculation of the Deemed Take for each GSP Group.



## BSC Audit Scope 2023/24

- 34.2 The Temperature Provider is sub-contracted by the SVAA to provide Noon Temperature Data.
- 34.3 The Time of Sunset Provider is sub-contracted by the SVAA to provide Time of Sunset Data.
- 34.4 The Teleswitch Agent provides the Teleswitch Data.
- 34.5 The Profile Administrator is the agent contracted by BSCCo to derive sets of regression coefficients for each Profile Class. The Profile Administrator will monitor the accuracy of profiles delivered from the Profile coefficients.
- 34.6 The BSC Audit testing includes:
- NHH data (from Supplier Purchase Matrix)
  - HH data
  - Daily Profile variables (Noon Temperature Data, Time of Sunset Data, Teleswitch Data)
  - GSP Group Take (from CDCA)
  - LLFs
  - Application of regression coefficients
  - Application of time of sunset/Teleswitch data
  - Application of Default data (including BM Units)
  - Production of daily Profiles
  - Calculation of Deemed Take
  - Calculation of volumes by BM Unit

## 35. Trading Disputes

- 35.1 The Trading Disputes process is used to correct errors in Settlement.
- 35.2 The BSC Audit testing includes:
- Procedures and documentation for registration and logging of Trading Disputes in respect of Reconciliation Settlement Runs
  - Procedures and documentation in operation for the registration/logging of queries and requests for assistance
  - Resolution of Trading Disputes and application of dispute payments

## 36. Balancing Mechanism

- 36.1 The System Operator shall be audited by the BM Auditor against the requirements of Section H 5.1.6 of the BSC, which relates to the compilation and submission of data to the SAA.

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## Additional Considerations

All BSC Parties and Central Systems have to implement changes approved by the BSC Panel. The releases are issued three times a year (February, June and November) and have to be fully implemented in the affected systems to ensure compliance with the BSC.

The BSC Audit will include:

- Checks to ensure zero to three BSC Modifications or Change Proposals selected by Elexon have been successfully implemented by Suppliers, Supplier Agents and Licensed Distribution System Operators. Changes will be selected based on potential material impact.
- This testing will focus on confirming the successful and compliant implementation of the relevant change(s) rather than looking at Parties' change management processes.

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## Areas Out of Scope

The activities/ data which fall outside the scope of the BSC Audit are detailed below.

Activity/ Data	Reason For Exclusion
Customer billing.	Outside scope of BSC.



## BSC Audit Scope 2023/24

Activity/ Data	Reason For Exclusion
Production of Transmission Network Use of System (TNUoS)/ Distribution Use of System (DUoS) reports.	Outside scope of BSC - does not form part of calculation and allocation of funds under the BSC.
MRA disputes procedures.	Outside scope of BSC – included within the Master Registration Agreement.
Contractual relationship between Parties and their Party Agents and between BSCCo and BSC Agent.	Does not form part of the calculation and allocation of Trading Charges under the BSC.
Electricity Market Reform (EMR)	Outside scope of BSC.
National Grid Electricity System Operator Limited (ESO)	Outside scope of BSC Audit – however within scope of the BM Audit as per Section H of the BSC.
Retail Energy Code (REC)	Outside scope of BSC – As of July 2022, due to implementation of BSC changes for Switching SCR (REC 3.0). Key changes include removal of Procedures relating to SVA Meter Operations for Metering Systems Registered in SMRS and the responsibility of the SVA MOA role.